

Abstract of the Disclosure:

Processing parameters of at least one plate-shaped object,
e.g. a semiconductor device or wafer, or a flat panel display,
in a processing tool are adjusted depending on which
5 processing device out of at least one set of processing
devices has been used for the semiconductor device in a
preceding step. A virtual or physical tag is generated, which
connects the semiconductor device identification with the
processing device identification. This enables a compensation
10 of tool-dependent effects in previous processing of a single
device. An example is chemical mechanical polishing prior to
lithography, where alignment marks can be deteriorated
differently between CMP-units. The amount of compensation is
detected and evaluated by metrology tools, which - depending
15 on the sequence of the metrology step relative to the
processing step to be adjusted - either feed-forward or feed-
backward their results to the processing tool. The yield of
semiconductor device production is advantageously increased.

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